

*B1
conced*

23. (New) A method for the treatment of Type II diabetes mellitus in a human or non-human mammal which comprises administering an effective, non-toxic, amount of the compound according to claim 13 to a human or non-human mammal in need thereof.

REMARKS

The claims are 13-23 with claim 13 being the sole independent claim. Claims 1-8 and 12 have been cancelled without prejudice or disclaimer. Support for new claims 13-22 may be found in original claims 1-8 and 12. Support for new claim 23 may be found in the specification at page 1, lines 19-21 and page 3, line 11. No new matter has been added.

Although no official action has been taken regarding new claims 13-20, these claims define the same subject matter and contain many of the same terms as original claims 1-8 and 12 that were examined and were the subject of the Office Action dated October 22, 2002. To expedite prosecution of the subject application, Applicants will address the objections raised in the Office Action to the extent that they pertain to the new claims. Applicants respectfully traverse the rejections in the Office Action.

The Examiner had objected to original claims 2 and 3 under 35 U.S.C. §112, second paragraph, as allegedly indefinite for reciting the limitation of Figures I and II, respectively. Applicants respectfully submit that claims 14 and 15 are written in accordance with M.P.E.P. 2173.05(s). Claims that are written to incorporate by reference a specific figure or table are not improper and are not considered indefinite.

The Examiner contends that the terms "isolated" and "substantially" are indefinite. Applicants respectfully disagree.

The term "isolated" is not indefinite and is well understood and commonly used in the art. A chemical definition of the term "isolated" from The American Heritage® Dictionary of the English Language: Fourth Edition. 2000, is "to separate (a substance) in pure form from a combined mixture." The Examiner questions "how isolated is the hydrate?" Applicants respectfully submit that any restriction on the term "isolated" implies that the compound is not isolated but is admixed with other compounds, solvents or materials. Accordingly, when the term "isolated" is used to describe the compound of claim 16, the term indicates that only solid hydrochloride dihydrate is present and that no other compounds, solvents or materials are admixed therewith. Based on the doctrine of claim differentiation, this further indicates

that the compound described in claim 1 may be isolated or may be present as a mixture with other compounds, solvents or materials.

Applicants also submit that the term "substantially" as used in new claims 14 and 15 is not indefinite. Those skilled in the art recognize that the IR spectra and/or X-ray powder diffraction (XRPD) pattern (exact appearance and location of various peaks, etc.) obtained for a given compound may vary slightly depending upon, for example, the concentration of the compound in the sample used to obtain the IR, the temperature at which the XRPD was taken, the manner of preparation of the specific compound sample used to obtain the IR spectra and XRPD (degree of grinding, manner of packing, etc.), the identity of the IR or XRPD instrument used to obtain the spectra or pattern, respectively, etc. Applicants respectfully submit that those skilled in the art will know and understand how to interpret such IR/XRPD data to determine whether it is substantially the same as that shown in Figures 1 and 2, or whether it is different.

Original Claims 1-8 and 12 had been rejected under 35 U.S.C. §103 as allegedly unpatentable over Olefsky et al. The Examiner contends that it would have been allegedly obvious to synthesize a polymorph of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione with different physical properties.

In *Bristol-Myers Co. v. U.S. International Trade Commission*, 15 USPQ 2d 1258, 1261 (Fed. Cir. 1989), the court stated that when determining the obviousness of a new chemical structure, the correct inquiry is "whether it would have been obvious to make the [new crystal form] based on the teachings of the prior art." The Court went on to state that "[t]here must be an affirmative suggestion or teaching in the prior art whereby it would have been obvious to make the [new crystal form] (emphasis added)." *Id.* at 1262.

As an initial matter, Applicants wish to note that the claimed invention is not directed to any hydrochloride salt of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione, but rather, to a specific dihydrate of a hydrochloride salt of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione that is characterized by a specific infra red spectrum and X-ray diffraction pattern. The 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione hydrochloride dihydrate defined in claim 13 of the present invention is a unique compound, the existence, structure and properties of which were neither disclosed nor predicted in Olefsky.

Applicants respectfully submit that Olefsky fails to support a *prime facie* case of obviousness in this case because Olefsky fails to disclose, suggest or provide any motivation to make or try to make:

- 1) any hydrated form of the hydrochloride salt of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione;
- 2) the dihydrate of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione hydrochloride; or
- 3) the polymorphic form of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione hydrochloride dihydrate that provides the claimed IR and XRPD spectral peaks as claimed in claim 13;

Assuming *arguendo*, that it would have been obvious to try to prepare a polymorph of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione hydrochloride dihydrate, Olefsky fails to disclose or suggest any process to prepare either a dihydrate of 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione hydrochloride or a 5-[4-[2-(N-methyl-N-(2-pyridyl)amino)ethoxy]benzyl]thiazolidine-2,4-dione hydrochloride dihydrate that provides the IR and XRPD spectral peaks as claimed in claim 13. Obvious to try or experiment is not the standard under §103. Moreover, as quoted in *Bristol-Myers Co. v. U.S. International Trade Commission*, 15 USPQ 2d 1258,1261 (Fed. Cir. 1989), in "*In re Cofer*, 354 F.2d 664,668, 148 USPQ 268, 271 (CCPA 1966), the court held that a new crystal form of a compound would not have been obvious absent evidence that 'the prior art suggests the particular structure or form of the compound or composition as well as suitable methods of obtaining that structure or form (emphasis added).'"

In view of the foregoing amendments and remarks, Applicants respectfully submit that the claimed invention is patentable over the disclosure of Olefsky and that subject application is in condition for allowance. If the Examiner has any remaining objections or concerns, the Examiner is respectfully requested to contact Applicants' undersigned attorney to resolve such issues and advance the case to issue.

INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 C.F.R. §1.56, and in accordance with the practice under 37 C.F.R. §1.97, the Examiner's attention is directed to the documents listed on the enclosed Form PTO 1449. A copy of each of the listed documents is also enclosed. The filing of this Information Disclosure Statement should not be construed as

an admission that any particular listed reference is effective prior art or discloses or renders obvious any aspect of the claimed invention.

This statement is being filed under the provisions of 37 C.F.R. §1.97(c)(2), before the mailing date of a Final Office action or before the mailing date of a Notice of Allowance. Please charge the \$180.00 fee specified in 37 C.F.R. §1.17(p) to the Deposit Account No. 19-2570.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

This Amendment and Information Disclosure Statement is being filed together with Petition for Extension of Time. In the event that these papers get separated, this constitutes a Petition for Extension of Time for the minimum period required to effect timely filing of this Amendment and Information Disclosure Statement, together with an authorization to charge any fees under 37 C.F.R. §1.16 or §1.17 which may be required by this paper to Deposit Account No. 19-2570.

Respectfully submitted,



Kathryn L. Sieburth
Attorney for Applicants
Registration No. 40,072

GLAXOSMITHKLINE
Corporate Intellectual Property-UW2220
P.O. Box 1539
King of Prussia, PA 19406-0939
Phone: (610) 270-5012
Facsimile: (610) 270-5090